REMARKS

Reconsideration of the present application is respectfully requested.

Applicants request that the Examiner consider the IDS filed on August 10, 2004 subseqeuent to issuance of the present office action. The Examiner should note that, while JP-A-2000-373249 was listed in the form PTO-1449 that accompanied the IDS, JP-A-2000-373249 is actually a corresponding Japanese application that also claims priority from the Japanese priority document (JP 11-347582) of the present application. A partial translation of an Office Action issued by the Japanese Patent Office in connection with JP-A-2000-373249 was submitted with the August 10th IDS and not the application itself. Therefore, the Examiner should consider the partial translation of the Japanese Office Action, make any clarifying remarks on the PTO-1449, and initial and return a copy of the PTO-1449 as proof that the reference has been considered.

Applicants request that the Examiner contact the undersigned if the Examiner believes that Applicants should submit a revised form PTO-1449.

Claim 23 has been rejected under 35 USC 102(b) as being anticipated by Schmitz. This rejection is respectfully traversed.

Schmitz describes a single electronic controller 16 in a vehicle that can be used with a plurality of vehicle types. The controller 16 includes a first memory 22, 122 that is the same for all vehicle types and a second memory 24, 124 that is programmed according to particular vehicle type. As shown in FIG. 4 and discussed in col. 8, a portable unit 50 in communication with a host computer 12 may be used to reprogram the controller 16. For security purposes, as discussed beginning at col. 8, line 42, the

controller 16 may be reprogrammed once the portable unit 50 reads the code representative of vehicle type from the second memory 24, 124 of the controller 16 and has verified with the host 12 that the code corresponds to the host computer's record of vehicle type for that vehicle chassis number.

Claim 23 recites a rewriting device comprising inter alia

> ... control information transmitting means for acquiring the control information from the external device after ~~executing~~ the processing execution means executes the predetermined processing with the electronic control unit ~~in response to the rewriting permission~~, and for transmitting the control information to the electronic control unit, wherein
>
> the predetermined processing includes checking a match between the electronic control unit and the external device by using access information received from the external device.

Schmitz fails to teach or suggest at least the above newly recited features of claim 23. Specifically, the communications link 60 in Schmitz, identified by the Examiner as the control information transmitting means, is not capable of executing processing with the controller 16, as it is only a link and therefore has no processing capability. In addition, while Schmitz generally relates to preventing unauthorized reprogramming of vehicle controllers as discussed above based on correspondence between the unit 50 and the host 12 regarding vehicle type identification information, it does not address the problems associated with unauthorized use of the portable unit 50 when, for example, the portable unit is stolen and is being operated from an unauthorized location, as does the present invention.

According to the rewriting device of the present invention, the function f constituting access information is stored in the control center 30 rather than in the rewriting device 20. Only when the control center 30 determines the rewriting device 20 to be legitimate (upon confirming that ID information and associated information, such as

a telephone number from which the rewriting device 20 contacts the control center 30), the function f is transmitted from the control center 30 to the rewriting device 20 (B2, B3 in Fig. 2). Therefore, even when the rewriting device 20 or information inside the rewriting device 20 is stolen, it is not possible to rewrite the control information of the ECUs 11 – 14, as the access information for accessing the ECUs 11-14 is not stored in the rewriting device 20, but rather must be retrieved from the control center 30 only after the control center 30 compares and confirms that the ID and associated information from the rewriting device match corresponding information stored in the control center. See bottom page 22 – top page 23.

Therefore, as Schmitz does not teach each and every element of the present invention as recited in claim 23, a prima facie case of anticipation has not been established. It is respectfully requested that the Examiner's rejection of claim 23 under 35 USC 102(b) be withdrawn.

Claims 1, 8-10 and 13-17 (and 26?) have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Doyle. This rejection is respectfully traversed.

Schmitz is deficient in its teaching for reasons note above. Doyle relates to monitoring and managing a control parameter of a vehicle. Specifically, vehicles 12, 14 have respective mobile terminals MCT that monitor the control parameter and communicate with an external central station. Each MCT transmits the monitored control parameter, such as MAX ENGINE RPM or error information (if the control parameter is not appropriate such as when, for example, the parameter has been changed) to the central station, and rewrites the control parameter when necessary.

In col. 7, lines 3-19, although Doyle describes the host processing facility providing identification information along with updated ECU parameter information, such a safety procedure differs greatly from the claimed present invention, as identification information, associated information and/or access information as discussed above are not used in Doyle as in the present invention. Specifically, the host processing facility provides the identification information along with ECU parameter information to ensure that the correct ECU is properly updated, and not to ensure that the MCT, which the Examiner asserts is similar to the claimed rewriting device, is legitimate. In addition, each vehicle 12, 14 in Doyle includes its own MCT that monitors controllers in a particular vehicle, whereas the rewriting device of the present invention, such as the rewriting device 20, is used to connect to controllers in different vehicles that are brought to a particular location such as, for example, a car dealership or maintenance garage.

Also, contrary to the Examiner's assertion that begins at page 4, line 7 of the Office Action, the MCT of Doyle differs significantly from the portable unit 50 in Schmitz, as it is not "portable," and would make the portable unit 50, or "rewriting device," unsatisfactory for its intended purpose if the teachings of the two references were combined. If a proposed modification would render the prior art invention unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. (See In re Gordon, 733 F.3d 900 (Fed. Cir. 1984); Cited in MPEP 2143.01, 8th Ed., Rev. 1, Feb. 2003).

In the present invention, the control center 30 receives ID information as well as associated information (see discussion above in connection with claim 23) of a rewriting device 20 and compares an association relationship between these two sets of received

information with corresponding information stored in the control center 30 to determine whether the access requested by the rewriting device 20 is legitimate. If the access request is legitimate, the control center 30 then transmits the function f is to the rewriting device 20 (B2, B3 in Fig. 2) to enable the rewriting device 20 to rewrite the control program of the control unit 10. Therefore, even if the rewriting device 20 is stolen, it will not be able to rewrite the control program because any access requested by the rewriting device 20 will not be considered legitimate unless both the ID information as well as associated information corresponds to that which is stored in the control center 30.

Independent claims 1 and 13 include recitations directed to the above discussed features of the present invention relating to determining a relationship between identification information and associated information of the rewriting device and corresponding information stored in the control center, and to the control center transmitting access information to the rewriting device if the information acquired from the rewriting device matches that stored in the control center.

In addition, claim 26 is more generally related to storing access information in the control center that is required by the rewriting device to rewrite control information in the control unit.

The combination of Schmitz and Doyle neither teaches nor suggests the storage of such access information that is required by the rewriting device for rewriting purposes in a control center (claims 1, 13 and 26), or the transmission of such information to the rewriting device when ID information and associated information acquired from the rewriting device match corresponding information stored in the control center (claims 1 and 13). Further, no motivation exists for one skilled in the art to combine the cited

references as asserted by the Examiner, as modification of the portable programmer 20 in Schmitz in view of Doyle would render the Schmitz programmer unsatisfactory for its intended purpose as discussed above.

Therefore, as a prima facie case of obviousness has not been established, it is respectfully requested that the Examiner's rejection of claims 1, as well as claims 8-10 that depend therefrom, claim 13, as well as claims 14-17 that depend therefrom, and claim 26 under 35 USC 103(a) be withdrawn.

Applicants note a discrepancy in the Examiner's position regarding the status of claim 26. The Examiner appears to have rejected claim 26 based on the Examiner's comments on the rejection on page 3 of the Office Action. However, the Examiner does not specifically state that claim 26 has been rejected. Such is the case also at the bottom of page 2 in the Office Action mailed on April 14, 2003. Clarification in the next Communication from the Examiner as to the status of claim 26 is requested.

Claim 2 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Takagi. This rejection is respectfully traversed.

Claim 2 depends from claim 1, which is allowable over the cited art for the above discussed reasons. Therefore, claim 2 is allowable over the cited art at least for the reasons given above for claim 1.

Claim 3 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle, Takagi and Yano.

Claim 3 depends from claim 1, which is allowable over the cited art for the above discussed reasons. Therefore, claim 3 is allowable over the cited art at least for the reasons given above for claim 1.

Claims 4 and 7 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Deo.

Claim 4 and 7 depend from claim 1, which is allowable over the cited art for the above discussed reasons. Therefore, claims 4 and 7 are allowable over the cited art at least for the reasons given above for claim 1.

Claims 5 and 12 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Berr.

Claim 5 and 12 depend from claim 1, which is allowable over the cited art for the above discussed reasons. Therefore, claims 5 and 12 are allowable over the cited art at least for the reasons given above for claim 1.

Claim 6 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Flick.

Claim 6 depends from claim 1, which is allowable over the cited art for the above discussed reasons. Therefore, claim 6 is allowable over the cited art at least for the reasons given above for claim 1.

In addition, the combination of Schmitz, Doyle and Flick does not teach the use of a telephone number of the rewriting device as "associated information" for use in verifying that an access request by the rewriting device is legitimate. Accordingly, in

view of the deficiencies in the teachings of Schmitz, Doyle and Flick, the Examiner has not established a prima facie case of obviousness with regard to the rejection of claim 6.

Claims 11 and 27 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Henderson.

Claims 11 and 27 depend from claims 1 and 26, respectively, which are allowable over the cited art for the above discussed reasons. Therefore, claims 11 and 27 are allowable over the cited art at least for the reasons given above for claims 1 and 26.

Claims 18, 30 and 33-34 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Koelle.

Schmitz is deficient for reasons already discussed. Koelle describes an engine control device 10 to which an external communications device 24 can be connected to reprogram a flash EPROM memory 14 in the engine control device 10 (see col. 4, lines 18-24). At col. 6, lines 24-34, a microcomputer 11 in the engine control device 10 waits to receive a specific programming enabling code from the external communications device 24. If the received code does not correspond to a code stored in or calculated by the engine control device 10, the program Prog for reprogramming the memory 14 is called up.

However, as with Schmitz, Koelle is devoid of any teaching or suggestion of a control center as recited in claim 18 that determines that a rewriting device is legitimate. In fact, Koelle is completely silent with respect to a control center, much less a control center that determines whether the external communication device 24 (which apparently the Examiner asserts is analogous to the rewriting device of the present invention) is

legitimate by comparing an association relationship between ID information associated with the rewriting device and associated information related to the ID information with its own stored association relationship. Rather, the portion of Koelle that the Examiner asserts teaches verification of the legitimacy of a rewriting tool (col. 6, lines 24-34) actually relates to the engine control device 10 determining if a rewriting program (Prog) stored locally in ROM 16 should be called up based on an enabling code received from the external communications device 24.

Similarly, Koelle is devoid of any teaching or suggestion of a control information rewriting system as recited in claim 30 that includes inter alia a control center for performing data communication with the rewriting device and for storing predetermined access information necessary for the rewriting device to rewrite the control information, where the electronic control unit determines if the rewriting device is legitimate by receiving information formed by the rewriting device based on the predetermined access information received from the control center. This is because, as discussed above, Koelle only generally relates to the microcomputer 11 in the engine control device 10 that receives a specific programming enabling code from the external communication device 24, and that calls up the program Prog for reprogramming the memory 14 if the received code does not correspond to a code stored in or calculated by the device 10.

Therefore, as the combination of Schmitz and Koelle is deficient for the above noted reasons, a prima facie case of obviousness has not been established. It is respectfully requested that the Examiner's rejection of claim 18, and claim 30, as well as claims 33 and 34 that depend therefrom under 35 USC 103(a) be withdrawn.

Claims 21-22 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Koelle and Gurne.

Claims 21-22 depend ultimately from claim 18, which is allowable over the cited art for the above discussed reasons. Therefore, claims 21-22 are allowable over the cited art at least for the reasons given above for claim 18.

Claim 24 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Doyle and Gilhousen.

Claim 24 depends from claim 23, which is allowable over the cited art for the above discussed reasons. Therefore, claim 24 is allowable over the cited art at least for the reasons given above for claim 23.

Claims 31 and 32 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Koelle and Henn.

Claims 31 and 32 depend from claim 30, which is allowable over the cited art for the above discussed reasons. Therefore, claims 31 and 32 are allowable over the cited art at least for the reasons given above for claim 30.

Claim 35 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Lesesky. This rejection is respectfully traversed.

Schmitz is deficient in its teaching for the above discussed reasons. Lesesky relates to a communications system 2000 for communicating the status of one or more subsystems 100 in a trailer 20 of a tractor/trailer vehicle system to the tractor 10. The Examiner asserts that Lesesky cures the deficiencies of Schmitz by teaching the use of a check sum to verify the integrity or identification of information. However, as described

at col. 17 beginning at line 50, the trailer communications module 2020 includes protocol specific transceivers 2015 for receiving signals from subsystems 100 and for reconverting the signals to digital signals, and a microprocessor 2040 including a self-diagnostic means 2060. As noted at col. 19 beginning at line 62, the on-board self-diagnostic means 2060 analyzes these signals to determine inter alia if the check sum associated with the signals is incorrect.

However, as with Schmitz, Lesesky is silent with respect to any teaching or suggestion of a control center that utilizes both a check sum and vehicle specific information to determine whether a control program should be rewritten. This is because the communications system 2000 in Lesesky requires no vehicle specific information, as it is a self-contained on-board system. Also, unlike the rewriting device of the present invention, the self-diagnostic means in Lesesky has no rewriting capability, as it is only capable of analyzing signals and deactivating the spread spectrum transceiver 2030 or causing it to send an error message if the self-diagnostic means determines that a subsystem 100 or transceiver 2010, 2015 is defective. (See col. 20, lines 9-29.)

Therefore, as the combination of Schmitz and Lesesky is deficient for the above noted reasons, a prima facie case of obviousness has not been established, and it is respectfully requested that the Examiner's rejection of claim 35 under 35 USC 103(a) be withdrawn.

It should be noted that new dependent claims 36-43 have been added to further distinguish the presently claimed invention over the art of record by claiming the physical separation of certain of the claimed components of the present invention.

In view of the above remarks, Applicants assert that the present application is now in condition for allowance, and respectfully requests a Notice to that effect.

Please charge any necessary fees to Deposit Account No. 50-1147.

Respectfully submitted,

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